

California Environmental Protection Agency



Air Resources Board

Electricity in the Low Carbon Fuel Standard

Second Plug-In Electric Vehicle Infrastructure
Information Gathering Meeting

July 15, 2014

**California Air Resources Board
Cal EPA Headquarters, Conference Room 550**

Low Carbon Fuel Standard Program

- Reduce carbon intensity of transportation fuel pool by 10% by 2020
 - Help achieve AB 32 objective of reducing GHG emissions to 1990 levels by 2020
 - Transform and diversify fuel pool
 - Reduce petroleum dependency
 - Sets annual carbon intensity standards for gasoline, diesel, and the fuels that replace them
 - LCFS is fuel-neutral and market-based
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Regulated Parties for Electricity (Credit Generators)

- Current regulation
 - Utilities for residential charging
 - Third-party EVSPs and utilities for public charging
 - Fleet operators
 - Employers for workplace charging
 - Proposed amendments
 - Transit systems for fixed guideway transportation
 - Utilities for electric forklifts
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Requirements of Regulated Parties for Electricity

- Quarterly reporting, annual compliance report
 - Reported electricity use must be metered in all cases except some residential charging
 - Residential and public charging
 - Use all proceeds as direct benefits for current EV customers
 - Educate the public on benefits of EV transportation
 - Provide rate options that encourage off-peak charging and minimize adverse grid impacts
 - Fleet and workplace charging
 - Provide number of EVs charging annually
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Credits for Electricity used for Charging

- Number of credits based on:
 - Annual standard (g CO₂e/MJ)
 - kWh of electricity used to fuel vehicles
 - Energy efficiency ratio (3.4 for light duty EVs)
 - Carbon intensity of the electricity mix (annual average or marginal)
 - Credits can be sold to LCFS regulated parties who need them for compliance obligations
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Credits for Electricity used for Charging (cont.)

- ~ 2.5 credits/year for residential charging
 - One credit earned for ~1,300 kWh
 - Credit prices
 - Started ~\$10/credit
 - Rose to ~\$85/credit
 - Currently ~\$42/credit
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For more information about electricity in the LCFS...

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